## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



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June 22, 2011

Mr. Peter Cappel AIMCO 4582 S. Ulster St. Pkwy., Suite 1100 Denver, CO 80237

Re:

Request for Revised Remediation Work Plan Approval review and Technical Response to General Notice of Potential Liability review Michigan Plaza 3801-3823 West Michigan Street

Indianapolis, Indiana VRP #6061202

Dear Mr. Cappel:

The Indiana Department of Environmental Management (IDEM) has completed review of the Request for Revised Remediation Work Plan Approval received April 21, 2011 and the Technical Response to General Notice of Potential Liability received May 24, 2011 for the Michigan Plaza facility in Indianapolis, Indiana. IDEM has the following comments.

## Comments for the Technical Response to General Notice of Potential Liability:

- 1. Reviewing this report prompted IDEM to perform a confirmatory review of the soil and ground water sampling completed prior to the CAP 18 injections in August 2007. From this review, IDEM cannot concur that the Michigan Plaza source areas and ground water plume are fully defined. IDEM also cannot agree that the deep contamination across the site is wholly the responsibility of Genuine Parts or that Michigan Plaza cannot be the source of the vinyl chloride contamination in the residential drinking water wells. Additionally, a review of the 2005 sewer line investigation shows that the line along the immediate west side of the Michigan Plaza building was in poor condition, with worn joints and sags in the line. Since this part of the line was in similar condition to the lines in the known source area, is closer to the dry cleaner, and has not been investigated, it is inaccurate to definitively state that the source areas are fully delineated or that the vinyl chloride in the residential drinking water wells cannot be from the Michigan Plaza source areas. Additional investigation to the west of the plaza is required.
- 2. Pre-remedial 2007 grab sample borings for MMW-8S and MMW-P-03D contained PCE at depths of up to 40 feet. Based on these data, Michigan Plaza is a source of contamination in the deeper zones of the aquifer. IDEM has not conceded that all of the deep contamination is related to the Genuine Parts release. Shallow soil samples in the vicinity were indicative of DNAPL levels of PCE (up to 26 ppm), so basal aquifer samples are vital to the characterization of the site. IDEM has requested deep wells in correspondence from 2007 and 2008 but to date, MMW-P-03D is the only deep well in a source area. Without quantitative ground water data from the source areas, the plume cannot be fully delineated. Additional deep wells in the source areas are necessary.
- 3. Given that the lower portion of the aquifer has not been adequately monitored in the source areas, and the depth to the basal till has not been confirmed, it is possible that NAPL is present at the till surface. It could be moving at some angle to the ground water flow. IDEM has been informed that the basal till is shallower near Michigan Street, which could be a basal divide. Since the CAP 18 injections were completed before the plume was completely delineated, the injections may have further mobilized contamination that was already present. Additional delineation is required west of

the plaza toward Holt Road on the residential properties. As stated in IDEM's March 30, 2011 Quarterly Monitoring letter, vinyl chloride concentrations are above the 1-year Ground Water Screening Level for vapor intrusion. The residential properties to the west of the plaza must be investigated for vapor intrusion immediately. Additionally, a utility conduit investigation may be necessary to the west of the plaza along Michigan Street to completely evaluate the vapor intrusion pathway.

4. After reviewing the monitoring well logs, IDEM noted that the following monitoring wells were blind drilled in violation of DNR Rule 312 IAC 13-2-6: MMW-8S, 9S, 10S, 11D (20-32'), 13D (24-50'), 14D (24-50'), P-02 (12-30'), P-3D (30 to 35'), P-04 (20 to 28'), P-07 (20 to 28'), P-9D (25 to 45'), P-10S and D (24 to 38'). Monitoring wells without basic geologic and field screening data are not useful for site characterization. Since the wells were blind drilled in these locations, it is unclear whether they truly reached the base of the aquifer at these locations. IDEM will determine at a later time if the data from these wells will be used for screening purposes only and if additional properly logged monitoring wells will be required for remediation and closure purposes.

5. Additionally, the report states that ground water samples were collected using low flow methods. The field sheets were not provided for these sampling events which would confirm the methodology. Specifically, since all the Michigan Plaza wells have 10 foot screens, IDEM is concerned with the depth of the sampling intake. Since many of the wells were not properly logged, it is not clear whether the most contaminated zone is being monitored.

6. In addition to incomplete delineation to the west of the plaza, the plume is also not delineated south of MMW-P-09D, which contains vinyl chloride above RISC Industrial Default Closure Levels. As requested in IDEM's November 17, 2008 comment letter, additional delineation is necessary south of MMW-P-09D to identify vinyl chloride impacts on the Floral Park Cemetery property. IDEM understands the concern of drilling in a cemetery, but delineation is necessary to determine the extent of the vinyl chloride.

7. IDEM does not agree with the statement that the U.S. EPA is in conflict with the Superfund Memorandum of Agreement (MOA). The MOA states, "At sites successfully completing a remediation under the VRP, Region 5 does not plan or anticipate any federal action under the Superfund law (CERCLA) unless, in exceptional circumstances, the site poses an imminent threat to human health and the environment." The site is currently undergoing remediation efforts and has not completed a successful remediation yet. Also, given that drinking water wells have been impacted with vinyl chloride, an imminent threat to human health has already occurred. At this point in EPA's investigation, and with the pending General Notice of Potential Liability letter, it is not clear that the source of the vinyl chloride is not coming from the plumes emanating from the Michigan Plaza site's releases or from the remediation thereof.

## Comments for the Request for Revised Remediation Work Plan Approval:

8. The proposed monitoring well locations on Figure 1 are acceptable and should be installed as soon as possible. Additionally, the proposed well nest approximately 250 ft directly east of MW-170, as discussed during the June 21, 2011 conference call, is acceptable as well. As stated in comment #1 above, additional investigation to define the nature and extent of contamination is required. All newly installed monitoring wells must be logged appropriately and soil samples should be taken for laboratory analysis as well. Note that additional wells may still be necessary if the extent of the contamination is not delineated after these three well nests are installed.

9. IDEM is not opposed to additional CAP 18 injections as stated in IDEM's March 30, 2011 letter in response to the Revised Work Plan for Third Round of CAP 18 ME Injections report. Comment #1 in that letter should still be followed (i.e., sample the newly installed wells before injecting CAP 18, monitor water levels closely during injections, sample the wells again after CAP 18 injection).

10. The report requested that IDEM revisit the current status of the Remediation Work Plan submitted in 2008 and subsequent response submittals. After reviewing the January 14, 2009 response submittal, IDEM spoke with the former Mundell project manager Leena Lothe and discussed the next steps to take. IDEM stated that after additional monitoring wells were installed and sampled, IDEM would review several quarters of data to determine the effectiveness of the CAP 18 injections on the source areas. IDEM did not receive another report for this site until October 2009, which were the 4<sup>th</sup> Quarter 2008 and 1<sup>st</sup> Quarter 2009 reports. By October 2009, IDEM and EPA had already found out about the drinking water wells contaminated with vinyl chloride and IDEM's focus changed to working with the EPA to determine the source of the vinyl chloride. IDEM will again

focus on the status of the Remediation Work Plan when the nature and extent of contamination has been fully delineated at and surrounding the Michigan Plaza site.

## Conclusion:

CC:

IDEM would again like to encourage full cooperation with the EPA regarding additional measures that have been requested by both IDEM and EPA that might lead to discovering the source of the vinyl chloride in the drinking water wells. IDEM and EPA requested an additional monitoring well be installed in a January 22, 2010 letter. Also, IDEM and EPA requested that monitoring wells be screened with a combustible gas indicator (CGI) via email correspondence on April 1, 2011. Given the high methane levels that are being generated from the CAP 18 injections, IDEM and EPA requested utilizing the CGI simply as a precaution and to protect human health and worker safety. This action item as well as the monitoring well requested in the January 22, 2010 letter have not been completed. Should further requests from EPA not be completed, and given that this site is being considered for enforcement under EPA's Superfund Division, IDEM will consider terminating the Voluntary Remediation Agreement and participation in the Voluntary Remediation Program.

Please notify IDEM when the monitoring wells will be installed so that representatives may be present. After the well installation, please again notify IDEM of the CAP 18 injection schedule. A work plan with proposed locations of additional monitoring wells in the source areas should be submitted to IDEM within 30 days from receipt of this letter. If you have any questions, please contact me at (317) 233-2991, (800) 451-6027, or at ebrittai@idem.in.gov.

Sincerely,

Erin Brittain, Project Manager Voluntary Remediation Program Office of Land Quality

Corey Webb, Section Chief Voluntary Remediation Program Office of Land Quality

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